

Claims

1 1. A visual programming system comprising,  
2 a hub and one or more adapters, said hub configured to communicate information with  
3 said one or more adapters by way of a common protocol, each of said one or more adapters being  
4 configured to communicate information between said hub and an associated operator, and  
5 a user input interface that receives input from a user directing interconnection of at least  
6 one operator,  
7 wherein said system is further adapted to automatedly combine functional aspects of said  
8 at least one operator in response to said input from said user.

1 2. The visual programming system of claim 1, wherein each of said one or more adapters is  
2 further configured to translate said common protocol to a protocol of said associated operator.

1 3. The visual programming system of claim 1, wherein each of said one or more adapters is  
2 further configured to translate said common protocol to a protocol of said associated operator,  
3 said associated operator communicates according to a communication protocol different from  
4 said common protocol.

1 4. The visual programming system of claim 1, wherein said system is further adapted to  
2 automatedly combine functional aspects of said a first operator and a second operator in response  
3 to said input from said user by communicatively connecting said first operator to said hub via a  
4 first one of said one or more adapters, and said second operator to said hub via a second one of  
5 said one or more adapters.

1 5. The visual programming system of claim 1, wherein each of said one or more adapters  
2 has a first interface substantially identical to a first interface of another adapter.

1 6. The visual programming system of claim 1, wherein at least one of said one or more  
2 adapters has a first interface and a second interface, said first and second interfaces  
3 communicating bidirectionally.

1 7. The visual programming system of claim 1, wherein a number representing a quantity of  
2 said one or more adapters that are unique is less than or equal to a number representing a quantity  
3 of said operators.

1 8. The visual programming system of claim 1, wherein an operator has an input port and an  
2 output port, each port communicating at least unidirectionally.

1 9. The visual programming system of claim 1, wherein at least one of said operators is  
2 derived from an external source.

1 10. The visual programming system of claim 9, wherein said external source is a Web site.

1 11. The visual programming system of claim 9, wherein said external source is substantially  
2 real-time information source.

1 12. The visual programming system of claim 9, wherein said external source is derived from  
2 said user.

1 13. The visual programming system of claim 1, wherein said external source is a file system.

1 14. The visual programming system of claim 1, wherein said external source is a legacy  
2 database.

1 15. The visual programming system of claim 1, further adapted to enable interoperation of a  
2 first functional aspect of one said operator with a second functional aspect of said one operator.

1 16. The visual programming system of claim 1, further adapted to contextually activate said  
2 functional aspects of said at least one operator.

1 17. The visual programming system of claim 1, wherein at least one of said operators is an  
2 application software program.

1 18. The visual programming system of claim 1, wherein said system is further adapted to  
2 combine functional aspects of a single said operator in response to said input from said user.

1 19. The visual programming system of claim 1, wherein said system is further adapted to  
2 generate a graphical representation of operation of a functional aspect of at least one said  
3 operator.

1 20. The visual programming system of claim 14, wherein said functional aspect is an output  
2 from said operator.

1 21. The visual programming system of claim 14, wherein said system is further adapted to  
2 said graphical representation of said operation of said functional aspect substantially in real-time.

1 22. A method of visual programming comprising,  
2 receiving input from a user directing interconnection at least one operator, and  
3 automatedly combining functional aspects of said at least one operator in response to said  
4 receipt of said input from said user.

1 23. The visual programming method of claim 22, wherein each operator has an associated  
2 protocol, and wherein said method further comprises translating from said associated protocol to  
3 a common protocol.

1 24. The visual programming method of claim 22, further comprising translating from said  
2 common protocol to said associated protocol of said associated operator.

1 25. The visual programming method of claim 22, wherein an operator has an input port and  
2 an output port, each port communicating at least unidirectionally.

1 26. The visual programming method of claim 22, wherein at least one of said operators is  
2 derived from an external source.

1 27. The visual programming method of claim 26, wherein said external source is a Web site.

1 28. The visual programming method of claim 26, wherein said external source is substantially  
2 real-time information source.

1 29. The visual programming method of claim 26, wherein said external source is derived  
2 from said user.

1 30. The visual programming method of claim 22, wherein said external source is a file  
2 system.

1 31. The visual programming method of claim 22, wherein said external source is a legacy  
2 database.

1 32. The visual programming method of claim 22, wherein at least one of said operators is an  
2 application software program.

1 33. The visual programming method of claim 22, wherein said method is further adapted to  
2 combine functional aspects of a single said operator in response to said input from said user.

1 34. The visual programming method of claim 22, wherein said method is further adapted to  
2 generate a graphical representation of operation of a functional aspect of at least one said  
3 operator.

1 35. The visual programming method of claim 32, wherein said functional aspect is an output  
2 from said operator.

- 1 36. The visual programming method of claim 32, wherein said method is further adapted to
- 2 said graphical representation of said operation of said functional aspect substantially in real-time.